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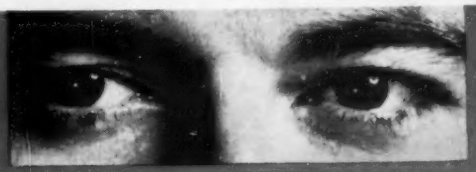
OCTOBER, 1954 VOLUME 31, No. 10



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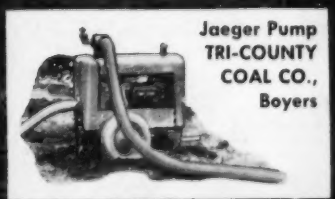

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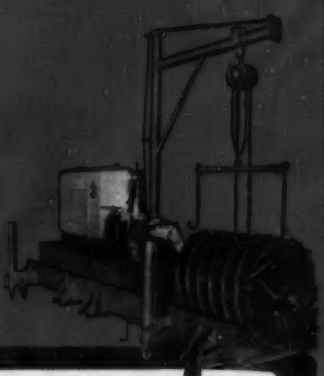

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COAL MINING

Vol. XXXI October, 1954 No. 10

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Published Monthly By

MODERN MINING PUBLISHING COMPANY

Publication Office—1118 Chestnut St., Erie, Pa.
Editorial Offices—4575 Country Club Drive, Pittsburgh, Pa., Phone Pl. 1-9411.
P. F. JASIK, Publisher and Editor

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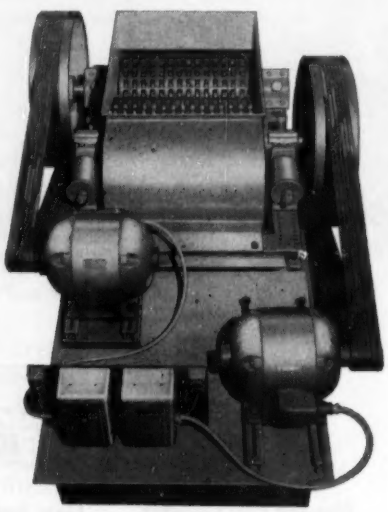

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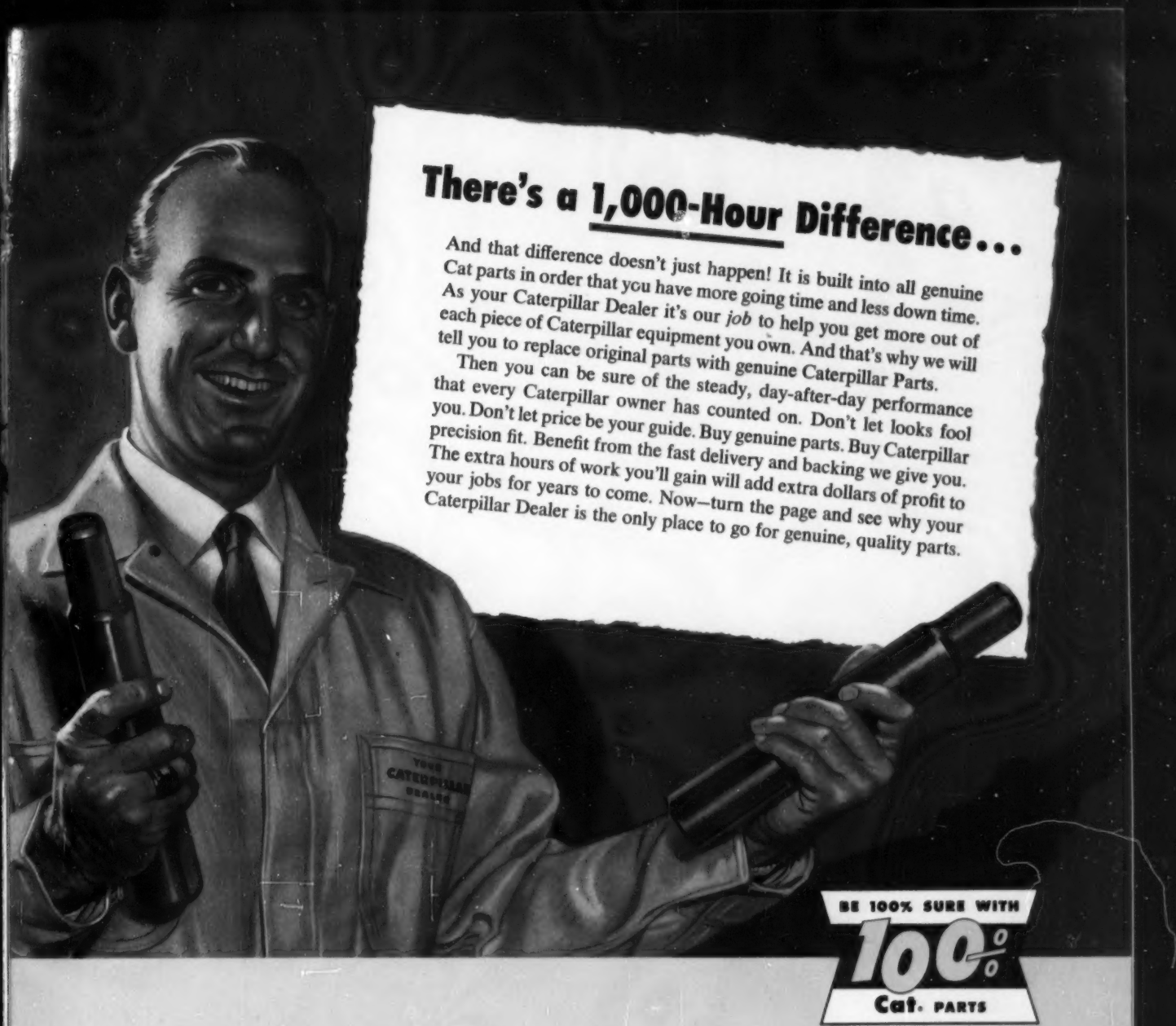

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You get more work hours in rock from tracks built to take a pounding like that shown below. As your Caterpillar Dealer, we can tell you the story of "Hi-Electro" hardening that builds extra resistance against wear and shock in Caterpillar-built track shoes, track links, pins and bushings. Whether your job is abrasive sand or granite rock, there's a bonus benefit in the proved performance of your Caterpillar track-type Tractor.

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Caterpillar track-type Tractors have ticked away millions upon millions of working hours. With this background we've been able to compare Caterpillar performance with all others. We've compared performance of Caterpillar parts with substitutes. Based on these comparisons and our experience in the field, improvements are constantly being made—improvements that help you get your jobs done on time—at a profit!

Let us tell you what goes on in the factory . . . in research, engineering, manufacturing and inspection. Track design first begins with research. Track rails, rollers, shoes and grousers are constantly under study. Special machines in Caterpillar laboratories put track parts and assemblies through grueling tests, such as would never be encountered in the field. Manufacturing is equally as exact and precise. Final inspection makes certain that parts go into assemblies that are certain to give you the long life built into every individual part.

As your Caterpillar Dealer, we will stand behind that performance . . . we will assure you more continuous hours of work . . . and we can show you that your best buy is a genuine Caterpillar part for your Caterpillar Diesel Tractor.

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LOOK TO THE DEALER BEHIND THE PRODUCT – CATERPILLAR

Do You Know?

● Gauze pads containing three germ-killing antibiotics have been invented to cut chances of infection when you are wounded at work, on the battlefield or when you are undergoing surgery in hospitals.

Wounds usually are infected with bacteria, but ordinary gauze pads do not offer protection against the spread of these germs. Body forces often are able to destroy the bacteria. But in battlefield wounds, so many bacteria may be carried into the body by shrapnel or bullets that the body's germ-combatting forces can be overwhelmed. This is particularly true when the soldier is unable to receive prompt surgical attention.

Invented by Frank R. Cusumano of Baltimore, who assigned patent No. 2,680,701 to Multibiotics Corporation of America, the gauze pad is impregnated with streptomycin, bacitracin and polymyxin B. These antibiotics are first dissolved in methyl alcohol. After the pads have been saturated in the solution, the alcohol is quickly evaporated in a blast of warm air so that the germ-killing potency of the antibiotics is not weakened.

● The patient with sciatica and backache from a herniated, or ruptured, disk in the lower back had better have the disk in the lower back had better have the disk removed surgically if he wants to get back to full time work and avoid further attacks of pain and disability.

This appears from a report by Dr. Clark H. Millikan, now at the Mayo Clinic, Rochester, Minn., in the Journal of the American Medical Association here. Dr. Millikan was formerly at the State University of Iowa, Lowa City.

Dr. Millikan followed 429 patients with protruded intervertebral disks in the lumbar region who were treated three or more years previously. Of there, 329 had aperations, 100 were treated conservatively. Conservative treatment consisted of absolute rest in bed for 10 to 14 days with heat and massage, pain relieving drugs and instructions when the patient left the hospital to sleep on a hard bed and to avoid sudden twists or strains of the low back. The operation was one in which much of the herniated disk as well as the protruded portion pressing on nerve root was removed.

Of the patients treated by operation, 50% were able to return to their former jobs and work at 100% capacity. Of the conservatively treated, only 30% could do this. Only five percent of the ones who had operations had a return of their sciatica and pack pain, compared to 60% of those treated conservatively.

Summing up, Dr. Millikan says an operation should probably be done in the following instances: When there is progressive paralysis or loss of sensation; when an extremely severe, protracted attack of sciatica does not respond to conservative treatment; when there are repeated attacks of sciatica with the production of considerable incapacity; when there is failure to improve during an adequate trial of conservative treatment; or when the patient cannot afford, for economical reasons, to continue conservative treatment for an indefinite period of time.

Here and There in the Coal Industry

● Edward G. Fox, president of The Philadelphia and Reading Coal and Iron Company, said here today (Saturday, September 25, 1954) that he looks for "a pretty good market ahead for the 1954-55 year in anthracite."

Speaking before the 44th annual Convention of the New York State Fuel Merchants Association, he told his audience that the violent price adjustment of the past two years in anthracite is just about reaching its end.

In his forecast, Mr. Fox listed a number of presently favorable conditions. These included small inventories of dealers, reduced supplies in storage by producers, and the shortened list of anthracite producers.

"With all of these in mind," he observed, "what would a normal winter do for the anthracite market? And even without very favorable weather," the P & R president continued, "I can see a pretty good market ahead for the 1954-55 year."

● Something new at this year's 37th Anniversary Convention will be the Workshop Sessions in the afternoon of the second day, Thursday, Nov. 19. Four of these sessions will be held, each devoted to problems in a specific area of NCA activity. All will begin at 12:30 P. M. with a luncheon, following which will come the business of the meeting.

The meetings and their chairmen are: Market Promotion and Public Relations Conference, Co-Chairmen: M. L. Patton, vice president, Truax-Traer Coal Co., and R. E. Jamison, Jr., vice president, Jamison Coal and Coke Co.; Transportation, Law and Tax Conference, Co-Chairmen: Walter F. Schulten, vice president, Pittsburgh Consolidation Coal Co., Robert G. Kelly, Esq., Jackson, Kelly, Holt and Moxley, and James F. Bisset, controller, Pittsburgh Consolidation Coal Co.; Natural Resources and Land Use Conference, Co-Chairmen: L. Newton Thomas, president, The Carbon Fuel Co., Hugh B. Lee, president, Maumee Collieries Co., and A. J. Christiansen, secretary, Illinois Coal Strippers Association; and Safety, Vocational Training and Education, and Local Association Officials Conference, Co-Chairmen: S. Austin Caperton, president, Slab Fork Coal Co., and Henry C. Woods, vice president, Sahara Coal Co.

Because this year's meeting is to be held in Pittsburgh, it may be one of the best attended conventions in NCA history. Organized at a meeting in Pittsburgh in October, 1917, NCA returned to that city for its 1937 convention. Of extreme interest to NCA members and their guests going for the third time to Pittsburgh will be the city's "new look" as a result of a $2 billion redevelopment program. The "new" Pittsburgh waiting to be seen by out-of-town coal producers and their families includes 36-acre Point Park at the historic junction of the Allegheny, Monongahela and Ohio Rivers; 23-acre Gateway Center adjoining Point Park; five new skyscrapers; the one-acre Mellon Square Park in the heart of the Golden Triangle; five new parking garages; the $33 million Greater Pittsburgh Airport; and $100 million Penn-Lincoln Parkway; and a 106-acre downtown cultural and civic center.

L. Russell Kelce, president, Sinclair Coal Co., Kansas City, and a director of NCA, will act as Toastmaster at the banquet which will conclude the convention on Thursday evening, Nov. 19. We want to call your attention again to the fact that the speaker at the banquet will be the Hon. Arthur S. Flemming, director of the Office of Defense Mobilization, and chairman of both the Interdepartmental Committee on the Soft Coal Industry and the President's Cabinet Committee on Energy Supplies and Resources. Two other prominent industrials are also going to be presented as speakers during the convention. Ernest T. Weir, chairman of the board of the National Steel Corp., will speak Wednesday afternoon, Nov. 17, and A. C. Monteith, vice president (engineering) of the Westinghouse Electric Corp., will address the session Thursday morning, Nov. 18.

Reservations meanwhile are being received at NCA headquarters in gratifying numbers each day and it looks now like attendance this year will exceed that of the 1953 Convention which was held in Washington.

What Does the Future Hold for the Coal Industry?*

By MR. THOMAS PICKETT,
Executive Vice President National Coal Association, Washington, D. C. Former Congressman from Texas

Tom Pickett, Presenting His Paper

To members of the Pittsburgh Coal Mining Institute, the history of the coal industry is a familiar story. You have lived with it. You are a part of it. For this reason I shall treat only briefly of coal's past and devote particular attention to the latter part of my subject: "What Has Happened to the Coal Industry and What Its Future Holds".

In looking into the future, we shall discover that even here there cannot be a great deal of controversy as far as the long-range picture is concerned. Fuel experts and economists are in general agreement on the demands for coal over the long haul . . . that is, beginning in 15 or 20 years. The one aspect in which unison of thought is lacking concerns the IMMEDIATE FUTURE of the industry . . . not tomorrow's tomorrow, but today's tomorrow. That is the phase which we shall emphasize this evening.

Let me say that I sincerely appreciate this opportunity to discuss the coal industry—its past and its future—at this meeting of the Pittsburgh Coal Mining Institute. I am especially pleased to meet with operating officials of both commercial and captive producers. The National Coal Association has long had a most friendly relationship with captive companies—in fact we number some of them among our own membership. It is my hope that the day is not too far off when we shall all unite in serving as spokesmen for the coal industry.

While tonight's assignment includes no reference to government and its effect on the coal industry, no discussion of the past, present, or future can ignore the impact of federal laws and executive orders. In the present period of America's history it is impossible to divorce the role of government from the conduct of industry. Government has become so much a part of our economic life that its influence is ever present. Its attitude toward taxes, social security, foreign trade, public power, conservation, freight rates, and other government policies can determine conclusively whether our industry is to fill its appointed role in the domestic economy and national security.

You may be interested to learn that, of more than 14,000 bills and resolutions introduced in the last Congress, there were 461 which

(Continued on Page 8)

*Paper read at the first Fall Meeting of the Pittsburgh Coal Mining Institute.

Mine Personnel's Opportunity to Aid in Coal's Future*

By HENRY ROSE
President, Pittsburgh Coal Company

The coal industry is in the doldrums. Most of us are old enough to have come through more than one previous period of this kind in our industry and can recall the earlier times when our conversation dwelt mainly on how long it would be before this country would exhaust its remaining oil reserves and again resort to coal as its principal fuel. At other times we have speculated on the date when gas would be similarly in short supply. During some periods we have turned to the government for help to pull us out of our difficulties.

We know now that we are in not only a highly competitive industry in coal, but also a highly competitive fuel industry with oil and gas treading on our heels all the while maintaining their level of reserves undiminshed for the past quarter of a century. We might as well make up our minds that this competitive situation is here to stay — oil and gas our present fuel competitors and, for the future, oil shales and atomic power. Those informed as to developments in atomic power believe that during the next 5 to 10 years we will see atomic power competitive in at least certain fringe areas where fuel prices are high or where transportation is difficult.

"Personnel's Opportunity to Aid in Coal's Future." Perhaps in keeping with the times it should have been titled "How to do it yourself." All of us firmly believe that we need to improve our productivity for survival but, unfortunately, many of us are too complacent — too willing to sit back patiently waiting for the miracle to happen. We forget that conversions, once made to other fuels at considerable investment, are not easily reversed if indeed they can be reversed at all. Most of us here tonight represent management — the one group who can do most about putting the coal industry back on its feet. Our job is that of organizing an efficient combination of tools, methods, workers, and supervision —the last being the key to all the others.

We need the right tools to do the job and it is very fortunate that today we find ourselves well along in a revolutionary development of equipment. Never before has there been such a variety of tools available to mine management, which, if properly fitted to the job, can

(Continued on Page 9)

Henry Rose Reading His Paper

*Read at the first Fall Meeting of the Pittsburgh Coal Mining Institute.

Left, back row: R. B. Haggers, Thos. Gwynn, Resident Eng.; A. H. Crayne, Chief Acct., all from Mather Collieries; Serafino Casani, Section Fore., Buckeye Coal Co.; T. P. Latta and C. A. McDowell, retired.

WHAT DOES THE FUTURE HOLD FOR THE COAL INDUSTRY?

(Continued from Page 6

would affect the coal industry, either directly or indirectly, if enacted into law. Many of those 461 were of relatively minor importance. Comparatively few of the important ones received major consideration. Fewer still were enacted into law, but many of those which were not . . . both the good and the bad . . . will likely be introduced in the next Congress which convenes in January.

J. F. Elkin, Gen. Supt. Mines. Duquesne Light Co. is president of the Institute.

Fortunately, it appears that big government as we have known it, with its intrusion into the affairs of business and industry, is not at the same level that it was two or three years ago, and we do not envision that it will rise to such dimensions again in the foreseeable future.

Unfortunately, despite the apparent downward trend of big government, we must accept the fact that its monstrous shadow will persist long after bureaucracy itself has receded below the danger point. As a high school orator explained to his classmates: "I only wish that future generations could be here to see the wonderful way in which their money is being spent."

In its paternalism, big government has been excessively diligent in setting up **some** phases of a program to benefit future generations; it has, however, grossly failed in some very essential respects that are **not** paternalistic. For example, it has failed to plan a well-rounded energy conservation program that would provide an adequate fuel supply for our children and our children's children. For that matter, **immediate** repercussions could result from the government's lack of attention to problems of the coal industry . . . problems which, if not solved, might well prevent coal from filling its vital role in the protection of this nation from aggressors. I believe that this oversight on the part of government will become apparent as we undertake to examine "What Has Happened to the Coal Industry."

From 1800 through the first half of this century, bituminous coal was the source of 46-1 percent of all the heat and mechanical energy produced in the United States Parenthetically, it is surprising to note that fuel wood was second with 18.6 percent and crude petroleum next with 16.6 percent, followed by anthracite (8.8 percent), natural gas (6.3 percent), and water power (3.6 percent).

Fifty years ago coal was without peer in the energy field, and its contributions were generally recognized. The public looked upon coal as the foundation of industrial strength in those years when the flow of coke ovens first brightened these skies around Carmichaels and Uniontown and Connellsville . . . when railroads laid tracks into mining communities so that New York and Washington might have electric light, Detroit might manufacture automobiles, and homes throughout the country might be kept warm and comfortable.

Coal was a plentiful resource, and it was always available. As a consequence, it came to be taken for granted. With the advent of competitive fuels, the importance of the coal industry became overlooked. The part that coal plays in the national economy was first dimmed by the spotlights turned on the romantic business of drilling for oil and gas . . as derricks loomed on the horizon and pipelines began to snake their way across the 48 states.

Even many of our newspaper editors and other thought leaders have had a tendency to write off coal. The general public has failed to realize that today—in 1954—half of the nation's electricity supply comes from coal, that a ton of coal is essential for the production of every ton of steel that comes from Pittsburgh and Youngstown and Gary and wherever else it is made. The general public does not realize that many chemicals—for war and for peace—come from coal, nor is it aware of the fact that even today some 13 million dwelling units depend upon coal for warmth and comfort.

Under these circumstances, perhaps it is not difficult to understand how government officials have overlooked the importance of

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MINE PERSONNEL'S OPPORTUNITY TO AID IN COAL'S FUTURE

(Continuel from Page 7)

result in greatly improved productivity. While there remains undoubtedly much development to be done on equipment, it is my opinion that we are much nearer to having the right tools today than we are to their effective use in the mine. We are just now scratching the surface in learning the effective use of the tools and equipment at our disposal.

Too often we attempt to apply new tools to traditional mining plans which fail to permit the full realization of the possibilities of the machine. It is difficult to completely break away from our traditional methods and projections. We find that, in spite of ourselves, our minds tend to resist such radical changes. However, I do not think we will fully exploit the possibilities of our new tools without a complete overhauling of our ideas on mine layout and planning.

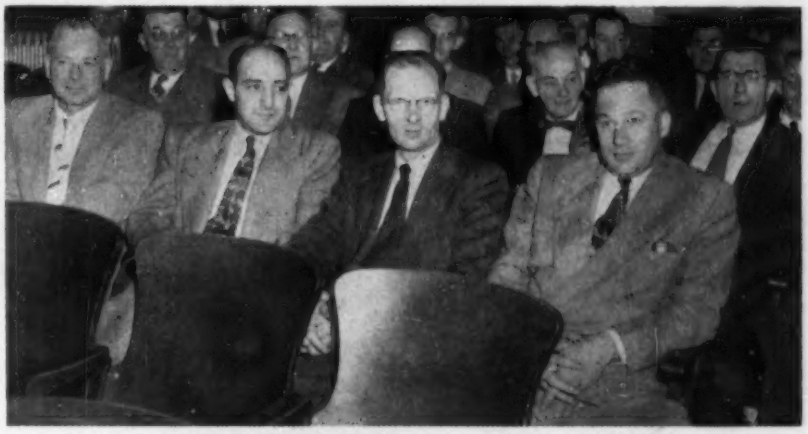
Our workers are going to require complete retraining if these tools are to be most effectively. This will require a real study of the job to be done, finding the best way to do the job, and finally training the worker on the job in a much more ordered way than most of us have attempted in the past. Today a mine worker must have multiple skills. It is practically impossible to get the fullest benefit from the few remaining hours at the working face unless all of the workmen are capable of doing 2 or 3 different jobs efficiently.

Finally, I come to the supervisor who, in my mind, is the key to our survival in a competitive market — far more so than the tools, the methods, or the workers. I want to talk for a minute about what I believe a section foreman can do for the coal industry — not because there is anything new in what I have to say — not because you do not already know these things — but because the best of us occasionally need a reminder and a little needling to prod us into doing the best job of which we are capable.

It is my understanding that many of you in this meeting are employed by steel companies or others who use their own coal and may not have been in the habit of considering yourselves in competition with the rest of the coal industry. It would seem to me a part of wisdom for each of you to look upon your mine or operation as just as fully competitive as though your coal was being sold on the open market. I cannot conceive of any company, over a long period, being willing to pay more for its coal than the price at which similar coal could be purchased on the open market. It would seem far safer for you to assume that the attitude of your company as to the purchase of coal would be just the same as your individual attitude when you shop around for your daily needs. You will seek the best value for your money just as your company will try to get the best value for theirs —its just a matter of good business.

Getting back again to the important matter of face supervision, we should recognize, as foremen, that we have now lost the effect of an incentive on the worker whose pay was formerly determined by the amount of work he accomplished. We have now, I think, to create a new relationship with the workman which must recognize the individual's capacity for pride in his job and his desire for appreciation and and recognition. You can develop the mine worker's pride in his job by showing him that you appreciate the importance of the job and realize the dependence of the rest of the operation upon the efficient performance of that job. Most of us are too prone to emphasize the failures on the job even though we know that, with most men, appreciation of a job well done is far more effective in improving his attitude toward the job and his willingness to learn better methods. We need to study each man's job as to the best way to do the job, how long it should take to do the job in that one best way and then, as foremen, be satisfied with no less than the best possible job. There is nothing, I think, more destructive of morale than favoritism expressed in failure to demand a good job from some individual workman. In every crew some workers will just naturally do a good job. It is completely unfair to permit others to do less. Many well thought out and well planned

(Continued on Page 17)



Left: H. D. Laing, Supt., Wm. Parisi, Mine Fore, Willis Baker, Maint. Fore. and J. S. Whitaker, Dir. Safety, all from the No. 10 Mine, Pittsburgh Coal Co. Back row, left: Thos. Thomas, Night Fore., Jack Clelland, Fore., Paul Hyatt, Orville Welling, Fore., all from the Mather Collieries and Orval Robson, Kennametal, Inc.

J. A. Brookes, Gen. Mgr. Mines, Pickands Mather & Co. was Toastmaster.

Above: Stripping with the dragline and loading out the coal in the area where the Sewickley seam was deep mined.

STRIPPING T H OF COAL NEAR

Above: Stripping overburden on the Sewickley seam where the coal is solid.

The coal mining town of Garrett lies in Somerset County, Pennsylvania where drill cores have indicated there are 15 seams of minable coal. The Ponfeigh Coal Company has been and still is deep mining and stripping coal about 56 years.

At present the Ponfeigh Coal Company is stripping three seams of coal on the same property, the Sewickley seam averaging 44 inches thick, the Redstone seam averaging 42 inches thick and the Pittsburgh seam Rider which runs 36 inches thick.

In some of the area being stripped the Sewickley seam has been deep mined. In that area only one cut can be made with dragline. Up to 60 feet of cover is moved off the Sewickley seam.

The Redstone seam lies below the Sewickley seam and up to 40 feet of cover is moved off it. The Redstone coal is covered with a black sandy shale.

The Pittsburgh Rider seam lies below he Redstone seam and is cov-

Left: Close-up view of the coal loading shovel in the Sewickley seam.

Left: The tipple of the Ponfeigh Coal Co. Slope belt on right leads into the deep mine.

HREE SEAMS GARRETT, PA.

ered with 4-feet of fireclay and 12 to 15 feet of sandstone.

The Coal in all seams is loaded out with a Lorain TL 41 shovel, equipped with a ¾ yard ESCO coal loading bucket.

Strip mine coal is hauled in trucks to the tipple and washing plant located between Berlin and Garrett. The washing plant uses a Jeffrey Diaphragm unit which washes all sizes from ⅜ inch to 6 inch.

Run-o-mine is fed to the washery by conveyor from a bin which is fed by strip mine trucks. All coal is crushed down to 6 inch by a Scottdale crusher. Lump coal runs over Jeffrey screens. Popular sizes are:

⅜ by ¾ Pea
¾ by 2" Nut
2" by 6" Egg
⅜ by 0 Slack

Raw coal can be made by-pass the washer for screening only in the tipple.

Markets are Metallurgical, Steam and Domestic.

Jeffrey Diaphragm washing unit is housed in this building. Conveyor belt on left feeds raw coal from strip mine trucks. Raw coal can be run through the washer for screening in the tipple.

Tractor assisting stripping shovel in one of the pits.

Left: Ed Vant, Jeffrey Mfg. Co.; John Harper, Eastern Gas & Fuel Asso.; H. M. Jerome, West Penn Power Co.; W. A. Smith, V-Pres., Irwin Fdry & Mine Car Co.

Greene County Country Club Host to Western Pennsylvania Coal Operators Golf Association

Left: Bill Peters, Stimple & Ward; Earl and Tom Peterson, U. S. Steel Corp.; Chris Minger, Prudential Life Insurance Co.

High wages, increased taxes and other higher operating costs are making coal mine management seek more economical methods of operation. New, labor saving machines and new methods of mining to best employ the machines, is our only way of solving these difficult problems.

The destiny of the coal mining industry depends to a great extent on automation.

Mechanization of coal mines is making things so complex that management can no longer safely make improvement decisions based on individual judgement. Alert management is now turning to scientific analysis for information to help make decisions.

Engineering economics, a science of predicting risks as well as opportunities is being used by management in analyzing problems. Scientific diagnosis enables proper evaluation in making important changes.

The coal producing industry is sorely in need of some central point for disseminating best, late information resulting from scientific analysis.

Since any central point of information must rely on many remote points for its life material, like the roots of a plant, gatherings like these coal men's golf parties which are composed of manufacturers as well as coal men could be used as feeder lines.

This party was held at the Greene County Country Club, near Waynesburg and was the only party at this club this year. The accompanying pictures show some of the guests in attendance.

Photographs shown on the next two pages were taken at this party.

Left: Harry Swihart, Buckeye Coal Co.; Hub Lano, Industrial Electric Co.; Bill McCalla, West Penn Power Co.; L. A. Lang, Industrial Electric Co.; Martin Valeri, Buckeye Coal Co.

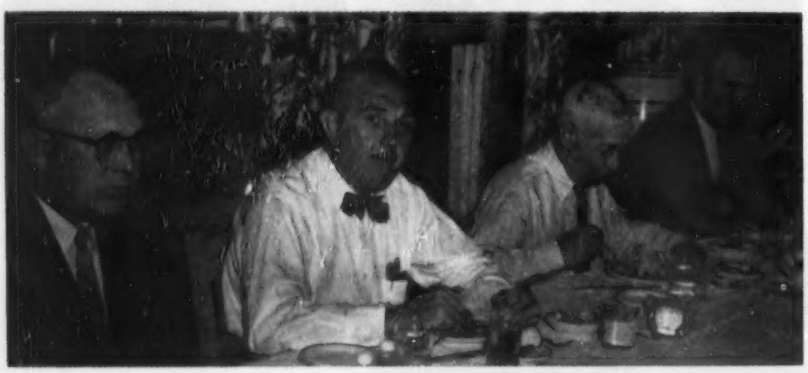
Right: Arch Appey, Foreign representative for the Mine Safety Appliances Co.; W. G. Steveson, Hillman Coal & Coke So.; C. M. Donahue and Merl Condon, Mine Safety Appliances Co.; H. J. Richards, Christopher Coal Co.

Right: Larry Gent and J. F. Servant, Joy Mfg. Co.; Guy Little Penn Machine Co.; Howard Miller, Crucible Fuel Co.

Left: Dr. Geo. J. Jacobs, guest; John B. Krajovic, Sales Eng., Crucible Steel Co.; H. A. Vilsack, Universal Welding and Metals, Inc.; Merlyn Condit, Mine Safety Appliances Co.; Fred Welch, Pro at the Uniontown Country Club.

Left: C. F. McLaughlin, Bituminous Coal Research; O. J. Jackson, U. S. Steel Corp.; Harry Kingsley, and John Drisko, General Electric Corp.; Ken Benson, Ohio Brass Co.

Right: Fred Colley, Penn Machine Co.; S. E. Gane of the S. E. Gane Co.; Pete Latta, Consulting Eng.; A. L. Brautegam, Victoria Coal Co.; Bill Hart, Crucible Fuel Co.



Left: Bill Schiffbauer, Buckeye Coal Co.; Allen Brookes, Mather Collieries Co.; Ed. Siemon, Hillman Coal & Coke Co.; Dick Johnson, Mine Safety Appliances Co.

Right: V. F. Oswald, Electric Mfg. & Repair Co.; Jim Younkins, Duquesne Light Co.; Bill Ginder, McGraw-Hill Co.; Elliott Williams, Hartley Supply Co.; H. C. Hoy, Mather Collieries Co.

WHAT DOES THE FUTURE HOLD FOR THE COAL INDUSTRY?

(Continued from Page 8)

coal to the nation's economy. What is more unfortunate, the place of coal in a preparedness program has also been overlooked, and it is for this reason that we who do recognize coal's paramount importance in a national emergency must work relentlessly to have our case heard by responsible officials . . . to appeal to them for action before it is too late.

Our national security! That is what we who understand the fuels situation must continually emphasize. There can be no further deterioration of the coal industry's productive capacity if this country is to survive the threat that now hovers over the entire globe.

Coal has been a necessary ingredient in the production of materials of defense for as long as we have been a nation. By the time that World War I erupted—with its enormous demands for guns, ships, tanks, and other mechanised equipment—coal had become vital to all industries. Having passed the half-billion mark for the first time in 1916, production of bituminous coal soared to 579 million tons in 1918.

In the ensuing peace years, output followed an undulant course, dipping to almost 300 million tons in 1932 and then recovering slowly in subsequent years. For 1938, the last year of relative quiet in Europe, production was at 349 million tons.

World War II brought serious fuel shortages to this country . . . shortages that should never be forgotten, for in another conflict they could spell disaster. Ships engaged in carrying oil through the Gulf of Mexico to the East Coast served as easy targets for Germany's submarines, with the result that millions of barrels of petroleum supplies never reached their destinations.

Let me read you some of the headlines that appeared in New York and New England newspapers during 1942 and 1943:

There were scores of other tragic accounts of tankers down at sea, fuel shortages, school and church closings, and work losses on the home front . . . stories that point up the folly and danger of depending upon foreign fuels to serve our needs. It was a costly lesson, but for some reason that lesson has apparently not been absorbed by responsible officials. Under present conditions those same headlines could be used again in the event of another world holocaust.

Since the end of World War II, America has placed more dependence upon foreign sources for fuel supplies than ever before . . . not because of domestic shortages, mind you, but because of policies that ignore realities based on experience.

Last year a total of 136 million barrels of residual oil were shipped into this country from refineries abroad. In energy value, those 136 million barrels were equivalent to 33 million tons of bituminous coal, and most of those imports competed directly with coal in the electric utility and heavy industrial markets of the East Coast. Many of the mines which would be serving those markets are now closed down, with a large portion of the labor force having moved elsewhere in search of employment.

In World War II coal was called upon for a 75 percent increase in supply, but the industry had six years—from the time that the first gunfire echoed across the Atlantic until our forces were ready to move into the Continent of Europe—in which to bring its production up to the required peak. Another world conflict may not be so generous about giving us time to open new mines and try to restore old ones, return experienced workers to mining communities, and construct the necessary thousands of new hoppers and gondolas necessary to transport our product to wherever it is needed.

One of the objectives of coal industry management and labor, with the assistance of other good citizens who understand the military importance of maintaining a vigorous industry, is the enactment of a law providing for a restriction on the amount of residual oil that may be imported into this country. In the last Congress a bill of this nature was strongly backed and reached the floor of the House, but pressure of the Administration defeated the measure. The bill was lost, but the combination of forces supporting it required the Administration to accept a one-year extension of the Reciprocal Trade Agreements Act without major revision instead of the liberalized three-year program which had been advocated. We expect to make another strong effort to secure enactment of a legislative limitation on imported residual oil in the next Congress.

Looking back to requirements of World War II, we see that bituminous coal production went over the 600-million-ton mark for the first time in 1944. Production remained high in the closing year of hostilities and in the immediate postwar years, but then there followed a sharp decline that was checked only by the demands consequent to the shooting in Korea. Once more output began to level off, and for 1954 bituminous coal production is not expected to exceed 400 million tons.

A brief glance at our major markets quickly reveals what has happened to the coal industry. Railroads, once our best customers, began to dieselize immediately after World War II. From a high of 132 million tons of bituminous coal in 1944, railroad consumption is now down to approximately 20 million tons per year.

The 125 million tons that were distributed through retail dealers in 1944 is now at approximately 60 million tons.

Eight years ago our "general industry" customers—which do not include steel and rolling mills, electric utilities, and a few selected other industrial consumers—took 120 million tons of bituminous coal. In 1954 they are using in the vicinity of 90 million tons. One important reason for this decline is that marketers of natural gas—in order to keep their distribution lines in full operation during the summer months—offer their product to heavy industrial users at dump prices in these periods. The same sales technique is also responsible for an unfair invasion of our electric utility market during the summer.

Despite the fact that the electric utility industry has become coal's foremost consumer, the increase of coal consumpition by generating plants is far below what it should be. In addition to the losses sustained through the dumping of natural gas, coal has—as I have pointed out—been seriously injured by the influx of foreign residual oil dumped in the utility and other markets of the East Coast. Once a remedy is provided for these inequitable competitive practices, coal will experience pronounced increases in both the utility and industrial markets.

Certainly coal can be proud of its record in the field of electrical energy! Through upgrading of the

quality of the product, with consequent improvement in boiler equipment and firing techniques, the efficiency of coal has increased considerably in recent years. Today one pound of coal goes as far in the generation of power as three pounds did thirty years ago. The Federal Power Commission has reported that in the month of June electric utilities produced one kilowatt-hour of electricity for every pound of coal consumed. Some of the newer generating units can squeeze a kilowatt-hour out of three-quarters of a pound of coal. It is apparent that, as more and more modern generating equipment is installed with the continuing rise in demand for electric energy, coal's overall efficiency records will continue to improve.

In 1953 the coal used in generation of electricity amounted to almost 116 million tons. Anticipated consumption by 1956 has been set at 165 million tons by the utilities experts, and for 1965 the figure is foreseen to be 250 million tons.

These gains are expected to take place regardless of developments in electric power generation through atomic energy. In a recent report to a committee of Congress, the Atomic Energy Commission stated that consumption of coal for generating electricity is expected to triple by 1975 despite the commercial application of nuclear fission.

Let me read a paragraph from that report: (Quote)

"The contribution that nuclear power can reasonably be expected to make toward total requirements for electric power by 1975 would do no more than moderate the already rapidly rising demand for conventional fuels. Because fuel supplies to meet the future generation of electricity may have to be doubled or trebled at the same time that demands on fuel for other purposes are rising sharply, nuclear power is not a threat to the existing market for other fuels. Continually rising amounts of coal will be needed to supply electric generating facilities already in operation when nuclear power first becomes competitive and to fuel the larger share of new plants for an indefinite time thereafter." (Unquote)

Now let us look at coal's situation in respect to the steel industry. Steel, as everyone knows, has always been a heavy consumer of bituminous coal, althought we who represent commercial producers have not enjoyed the full benefits of steel's increase in coal consumption over the years. For more than a decade the steel industry's annual order of bituminous coal has been within close proximity of the 100 million figure—sometimes over, sometimes a little less. That order has been off somewhat during the current year, but we anticipate an increase in consumption—and we hope for a better price—in the last quarter of 1954.

Steel industry leaders believe that between now and 1970 ingot capacity will have to be increased —on the average—by almost five million tons per year. Coal consumption will, of course, increase proportionately. Arthur B. Homer, president of Bethelhem Steel Corporation, in a statement made less than a week ago declared that the trend on steel consumption has been rising at a rate which points to the need for between 180 and 200 million tons of capacity by 1970. To the coal industry, these figures mean consumption of from 180 to 200 million tons each year by the steel industry.

By adding the expected demands of coal's other customers to the requirements of the electric utilities and steel industries, fuel experts come to the conclusion that at least 800 million tons of coal will be needed annually to keep our economy in balance by 1975. The Atomic Energy report which I mentioned previously went into the overall energy picture and came up with the prediction that the industry will have to produce 815 million tons of coal per year by the time this century reaches the three-quarter mark.

This estimate, I repeat is for 1975 . . . just twenty years more . . . twenty short years. For those of us who might find it difficult to gauge the relative space which this period will occupy in the passing years, we need only to think back two decades to realize how quickly that period of time elapses. In January 1935 George Earle was succeeding Gifford Pinchot as Governor of Pennsylvania. Senators Guffey and Davis were serving their first terms. The next year you folks in the Pittsburgh area experienced the big flood. Then Japanese soldiers began their penetration of China . . . rumblings in Europe . . . Word War II . . . and uncertain peace . . . Korea . . . and finally another peace built upon the shifting sands of a confused world. Despite all that has taken place in the world during that intervening period . . . and the personal joys and sorrows that we have experienced . . . those twenty years have moved swiftly into the closed pages of history.

As we approach the next two decades and their unprecedented demands for energy supply, it is up to us — up to everyone connected with the industry — to make certain that those demands will not go wanting. More than that, throughout the interim period it is imperative that we must be prepared to meet any emergency in a world of conflict and crisis.

Under present circumstances, the coal industry cannot be expected to carry on the expansion program necessary to keep apace with future demands. Nor can it be expected to be ready for whatever emergency conditions might evolve from the current international crisis. Studies based on past experience and anticipated emergency requirements reveal that in a sudden period of mobilization a per-year production of 650-700 million tons of bituminous coal would be needed. To establish this capacity requires an interim production level of at least 500 million tons. This is the "safe" production level as far as coal's potentia and the national security are concerned. At this time we are at least 125 milion tons below that level. We are doing everything possible to regain that position, but it is obvious that our efforts will not be successful without government cooperation.

Now, what are we going to do about this situation? Do we stand by and hope for someone to provide an elixir to revive the industry? Of course not. Do we assume that, inasmuch as all fuel experts point to a sharp upturn in the use of coal a decade hence, everything will right itself in the coming year? Certainly not. Too much is at stake from the standpoint of this nation's safety and freedom to whittle our time away or give up the ghost entirely.

This is not the time to neglect the coal industry. America needs you and me and everyone else willing to take an active part in maintaining a strong and vigorous coal industry. With an enlightened government attitude, I believe that this objective can be achieved despite the many problems now confronting us.

Currently at work in Washington is the Interdepartmental Committee on the Bituminous Coal Indus-

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MINE PERSONNEL'S OPPORTUNITY TO AID IN COAL'S FUTURE

(Continued from Page 9)

systems of mining have failed through bad execution.

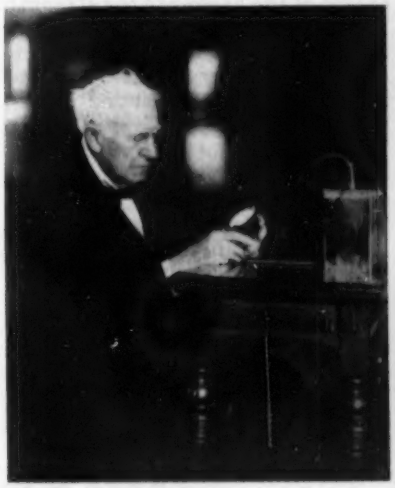
We need to study our machines. Today these machines have been carefully designed to stay in operation — not 1/3 of the time, not 2/3 of the time, but all of the time. That should be our objective. To that end, good maintenance is essential, and I would point out in passing that good maintenance is a 2-way job, not to be passed off completely to the Master Mechanic or Chief Electrician, but to be shared by the section foreman. The foreman can do much to improve the maintenance program by becoming familiar with his machines so as to be able to call attention to minor difficulties before they become serious and by making sure that the machine is properly used — rather than abused. If you have a production objective you will be interested in preventative maintenance as the only kind of maintenance which will help you succeed.

Probably the biggest job a section foreman has today is the organization of the face operation and this requires as intimate knowledge of the capacity of each machine and operator. I think you would find that if every foreman would go into his section every day with a firm determination that his loading machine would operate every minute of the shift, he would soon discover what sort of planning is required to achieve this end. I agree that if tomorrow he went to his section with this resolve — to operate the loading machine every minute of the shift, he would probably soon run out of coal, or cars, or working places, but these are not reasons why the machine cannot operate every minute — they are simply new problems created by the foreman's determination to attain his objective. The so-called bottlenecks should not be discouraging for, in fact, their appearance is a sign of progress. The successive elimination of each bottleneck will in turn result in some improvement in productivity and, sooner or later, in the appearance of a new obstacle. The process of eliminating these bottlenecks is the slow and painful process of achieving the sort of a job we are talking about here. The elimination of these production bottlenecks is a measure of the ingenuity and aggressiveness of the foreman. It is easy to sit back and accept these bottlenecks as excuses for failure to attain maximum production, but I suggest that if you find that practice more pleasant than the difficult task of organizing the section to overcome these delays, you may well be misplaced as a foreman.

And just a hint to top management which I am sure is unnecessary, that if we expect our foreman to use their ingenuity on the job we must actively encourage it. A few mistakes along the way are often the best sign that we are going someplace.

I will not bother you wtih figures as to the increase in productivity of the industry over recent years. All of you are familiar with these figures, but I would like to point out that productivity is increasing more rapidly today than in any previous period in our history. As management, we find ourselves almost in the position of Alice In Wonderland, for Alice had to run very fast indeed just so she could stay in the same place. I think we are seeing only the beginning of this big increase in productivity, and I submit that if any of us fail to keep pace with this trend it will not be through lack of ability to do so but through a lack of determination to do the job as we know it should be done. It is high time we put on our running shoes.

● Although best known for his invention of the incandescent lamp 75 years ago, Thomas A. Edison gave the mining industry throughout the world the first safe electric cap lamp which eliminated the principal cause of mine fires and explosions. As Edison is honored October 21 during "Light's Diamond Jubilee" ceremonies, miners also pay homage to the man who gave them a brighter and safer outlook on their jobs.



● The Rans Telehold leaves both hands free while telephoning. It is fully adjustable to either shoulder, fits all shoulder widths and slopes and snaps on in jiffy. For your Telehold write to Rans Manufacturing Co., New York 51, N. Y.

This Model 3500 Manitowoc Shovel stripping coal in West Virginia is driven by a Caterpillar 17,000 engine. Caterpillar D-8 Tractor is assisting on the spoil pile.

WHAT DOES THE FUTURE HOLD FOR THE COAL INDUSTRY?

(Continued from Page 16)

try, which the President created on July 6 "to determine the nature and extent of the danger to the strength and well-being of the nation created by present conditions in the soft coal industry, and to recommend such remedial action as can and should be taken."

While I am not at liberty to discuss the details of the meetings with this group, I can assure you that the industry committee has made such a diligent and thorough presentation of the real facts of the situation that there should no longer be any lack of understanding in regard to coal's importance to the national welfare and security . . . now or in the future.

Among other things, the industry committee has informed government officials that it is exceedingly dangerous to rely upon foreign fuels to take over domestic markets at the expense of our own producers. The committee has pointed out that — in order to promote the general welfare, provide ample supplies of needed fuel in time of war, and insure sufficient energy for the growing needs of the future — it is necessary that some restraints be placed upon the extravagant use of natural gas at the expense of coal. Other matters brought to the attention of the President's interdepartmental committee by industry spokesman include information on how coal can be given better opportunities through reduced freight rates, equitable trade practices on the part of importing countries, and practical and considerate government purchasing policies.

Also at work on the energy problem in a Cabinet Committee established by the President on July 30. In setting up this top-level committee, he directed it to "undertake a study to evaluate all factors pertaining to the continued development of energy supplies and resources and fuels in the United States, with the aim of strengthening the national defense, providing orderly industrial growth, and assuring supplies for our expanding national economy, and for any future emergency."

Meanwhile a Senate committee has promised to give immediate attention to a recommendation that Congress itself study our fuel resources and their importance to the national defense. This proposal was made by the Governors' Fuel Conference, of which Governor Fine of this state is chairman. I mention incidentally that the National Coal Association has worked closely with the Governors' Fuel Conference, and that Governor Fine is scheduled to address the National's annual convention and business meeting in Pittsburgh on November 17. I hope that we shall enjoy the pleasure of having members of the Pittsburgh Coal Mining Institute in attendance at that session in particular.

With so much attention being given to the coal industry by federal and state officials, perhaps it would be easy to become lulled into believing that our spade work is over and the rest is up to the government. I frankly like to feel that . . . now that the facts are known . . . definite action will soon be taken to remove the coal industry's unnecessary burdens. Yet I have been around Washington long enough to know that anything can happen in a "pressurized atmosphere," and I want you to know that even now there is considerable pressure being applied to prevent any change in the status quo regardless of its inherent dangers to the nation. Last week, for instance, representatives of importing oil companies met with the chairman of the Interdepartmental Committee on the Bituminous Coal Industry and released a compendium of economic confusion regarding the relationship between foreign oil and the domestic fuels picture.

So long as opposition of this type persists, coal's path will be difficult. Thus we cannot in any way relax our efforts in behalf of our country and our industry. Members of the Pittsburgh Coal Mining Institute are fully aware of the extent to which the industry has gone . . . in the way of investments, improvements, science, and research . . . in its determination to maintain a sound position. Unfortunately, these endeavors are not enough in themselves. Part of the coal industry's troubles have been brought on or intensified by governmental policy, so it is logical to hope for the necessary policy revisions to remedy these and other difficulties that have developed over the years. Indeed, for the time being at least, the government holds the key to what the coal industry's future holds.

● A quick means of removing unsightly discolorations and keeping change room shower stalls clean with little effort is afforded in a chemical compound being made available by Berman Chemical Company.

Known as Saf-T-Klenz, a powder-form cleaner has been developed especially for these purposes. In use, Saf-T-Klenz is simply sprinkled on a damp surface. After a few minutes allowed for dissolving, it is mopped lightly and then flushed with clear water. Algae accumulation, lime deposits, iron rust stains, soap oil and body grease, which have defied other cleaners, are removed without hard rubbing or scrubbing. Cleaning is by chemical action, rather than by "elbow grease."

The use of Saf-T-Klenz reduces the hazard of slippery floors by removing the grease film. It furthermore minimizes the conditions that breed and spread infectious germs.

Porcelain drinking fountains, wash bowls, toilets and urinals are similarly cleaned without effort.

Saf-T-Klenz is safe to use on glass, porcelain, china, marble, tile, terrazo, vitreous, and concrete surfaces. It contains no caustic, lye, soap or carbonate, and will not injure hands, clothing, floors or drain.

Saf-T-Klenz is odorless—not perfumed — and does not mask odors, rather removes the cause.

It is economical, requiring only one fifth the amount of ordinary cleaners, and is sold with a guarantee of satisfaction or cancellation of invoice. It is not even necessary to return the unused portion. A liberal free sample, descriptive literature and prices will be sent to anyone addressing their request to Berman Chemical Company, 706 Superior Street, Toledo 4, Ohio.

● Publication of a new, profusely-illustrated catalog sheet descriptive of X-73 chemical pellets for ice and snow removal is announced by The Monroe Company, Cleveland.

The new bulletin describes application methods and expected results, particularly emphasizing the importance of "Phosite," a rust inhibitor and heat-retaining agent. Also included is a list of typical users.

For copies, write to The Monroe Company, Inc., 10703 Quebec Avenue, Cleveland 6, Ohio.

Representing These Top-Line Products

RUBBER —
U. S. RUBBER CO.
Conveyor and Elevator Belts
Hose—All Types
Packings—Rod and Sheet
Mats and Matting
Chute Lining
Uscolite Plastic Pipe

MINING MACHINE PARTS –
COPPINGER MACHINE SERVICE
Precision Machine Work

HYDRAULIC COUPLINGS –
THE WEATHERHEAD CO.
Reusable and Crimped on Types
Flared and Flareless
Tube Fittings

PROTECTIVE COATINGS –
NEOPRENES—BY GACO

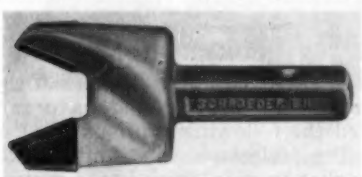
MOTOR COILS –
STIMPLE & WARD CO.
Armature — Stator — Field Coils — Rewinding all types of motors

WIRE ROPE –
JONES & LAUGHLIN STEEL CORP.

LEE SUPPLY COMPANY

138 Fallowfied Ave. Phone: Hudson 3-8933 Charleroi, Pa.

● Schroeder Brothers, Pittsburgh, Pa., has introduced the new Schroeder BH Drill Bit for hydraulic handheld coal drills. This new carbide-tipped bit promotes faster drilling; it has a heat-treated forged steel drill body and features greater clearances at the drill head



to reduce drag, and reduced area of penetration for ease of feed. BH Drill Bits are available from stock in 1¾" and 1⅞" sizes to fit standard ½" square auger bits.

● October 6, 1954 — Pittsburgh Consolidation Coal Company was notified today that its 1953 Annual Report has been judged the best of the coal and coke industry. A bronze "Oscar of Industry" will be awarded company officials by the Financial World on October 25, the third such award received by Pitt-Consol.

DRILLING IS A SNAP...
with SCHROEDER
BH DRILL BITS
For Hydraulic hand-held coal drills

Standard Augers also available from stock.

Designed especially for hydraulic hand-held coal drills, the Schroeder BH Drill Bit assures faster drilling with less effort.

Check these features . . .

- Tough carbide tips designed to hold edge longer.
- Heat treated forged steel bit body.
- Greater clearances provided to reduce drag.
- Reduced area of penetration for ease of feed.
- Available in 1¾" and 1⅞" sizes to fit standard ½" square auger bits.

Send today for details and price.

3116 Penn Ave. Pittsburgh 1, Pa.
SCHROEDER BROTHERS
HYDRAULIC, ELECTRIC & PNEUMATIC MINING EQUIPMENT
EXpress 1-1571

Lloyd G. Fitzgerald, Mining Engineer, U. S. Bureau of Mines, Mount Hope, W. Va., is shown seated on the left as he discusses the schedule of accident prevention classes with D. L. Haga, Superintendent, Wyoming Mine, Red Jacket Coal Corp. at Wyoming, W. Va. Other Key Officials standing, left to right, are: Pete Farguharson, Assistant Safety Director for the Red Jacket Coal Corporation operations; C. L. Milan, General Foreman at the Wyoming Plant; Eddie Riddle, General Tipple Foreman; and J. B. Growe, General Foreman.

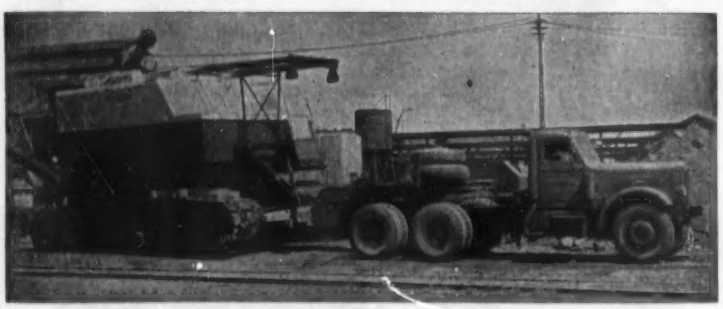
● Publication of a 4-page 2-color catalog describing Galion Allsteel Model 12N-5 bodies and Model 800T, 880 and 77353 hydraulic hoists is announced by The Galion Allsteel Body Company, Galion, Ohio.

Illustrations in the new folder include cut-away views, line drawings and action photos. Exclusive features of Galion products are described, with emphasis on construction features and mechanical details. Complete specifications are shown.

Model 12N-5 bodies are offered in lengths of 11 to 14 feet. Hoist ratings range from 14 to 25 tons.

Catalog copies are available at all Galion Distributors or upon request to The Galion Allsteel Body Company, Galion, Ohio.

MOVERS OF COAL STRIPPING AND CONTRACTOR'S EQUIPMENT



HEAVY HAULING • RIGGING

MOORE-FLESHER HAULING CO.

MOVERS of Coal Stripping and Contractor's Equipment
Preble & Adams Sts., North Side, Pittsburgh 33, Pa.
Phone ALlegheny 1-3600

● Edwin H. Lee who has represented various manufacturers in the Appalachian coal area is now operating the Lee Supply Company at 138 Fallowfied Avenue, Charleroi, Pa. At present the Lee Supply Company is handling the following manufacturers:

Edwin H. Lee

RUBBER—
U. S. Rubber Co.—Conveyor and Elevator Belts, Hose—all types, Packing—rod and sheet, Mats and Matting, Chute Lining, Uscolite Plastic Pipe.

MOTOR COILS—
Stimple & Ward Co.—Armature, Stator, Field Coils, Rewinding, All types of motors.

HYDRAULIC COUPLINGS—
Weather Head Co.—Reusable and Crimped on types, Flared and Flareless, Tube fittings.

WIRE ROPE—
Jones & Laughlin Steel Corp.

MINING MACHINE PARTS—
Coppinger Machinery Service—Precision Machine Work.

PROTECTIVE COATINGS—
Neoprenes—By Gaco.

CORRECTION

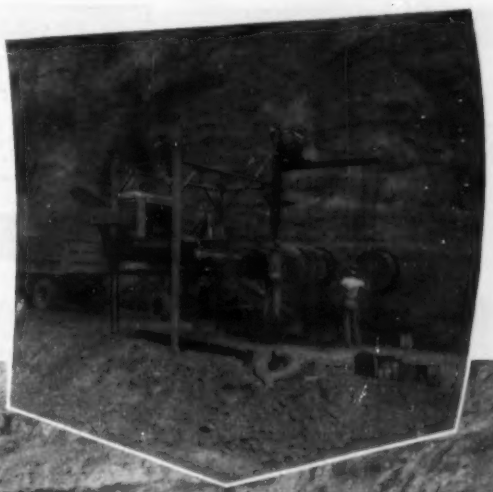
Pictures shown on Page 11 of the September issue should have carried the following captions:

Top—Electronically started Caterpillar tractor which broke ground for the first atomic power plant at Shippingport, Pennsylvania and energized with a wand by President Eisenhower from Denver, Colorado.

Middle—Herb Zukauskus, public relations manager for the Beckwith Machinery Company of Pittsburgh, pointing to the electronic starting device mounted on the tractor.

Bottom—Walter Roman, Westinghouse Electric Corp., Atomic Power Division Engineer, makes adjustments on electronic mechanism used to activate the automatic shovel at Shippingport, Pa., on Labor Day. This mechanism was operated from Denver, Colo., when President Eisenhower waved an atom rod.

profitable production doesn't have to stop when your mine is "stripped-out"



drill

bonus tonnage from seams buried by excessive overburden

CARDOX *Surface*

AUGER MINERS

When excessive overburden stops stripping, you can still mine coal profitably—and without extra development expense! Drilling 100 ft. or more with Cardox Surface AugerMiners into *already exposed* seams extends your mining operations—nets you as much as 50 tons of coal per man-shift that otherwise would have to be left behind. And it's high grade coal, too. Vertical direction control keeps auger in the best part of coal seam, away from rock and shale. A choice of cutterheads helps determine size. Coal comes out in a steady flow, convenient for loading by mechanical means. A full description of CARDOX AugerMiners and facts about how they can help you *continue profitable production* are available in a free AugerMiner bulletin. Write for it—or see your Cardox representative.

***NOW*—CHOOSE YOUR POWER**

Either 155 HP gasoline or diesel engines are now available on AugerMiners.
Drills hole up to 38 in. in diameter.

CARDOX CORPORATION • BELL BUILDING • CHICAGO 1, ILLINOIS

Harper, West Virginia
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Benton, Illinois
Phone: Benton 8-3821

St. Clairsville, Ohio
Phone: St. Clairsville 619

Library, Pennsylvania
Box 427
Phone: Library Colonial 3-6910

Camden-on-Gauley, W. Va.
Phone: Camden-on-Gauley 2181

Evansville, Indiana
307 Northwest Fifth St.
Phone: Evansville 2-8944

Pikeville, Kentucky
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Phone: Robinson Creek 5

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Phone: Boulder
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Ottumwa, Iowa
Phone: Ottumwa
Murray 4-6564

NOW at
BECKWITH
MACHINERY COMPANY

BONDED BUY

USED EQUIPMENT

Item P257 Caterpillar D8 tractor, with LeTourneau straight cable blade and LeTourneau cable control; equipped with crankcase guard pull hook and electric light. "As is, where is, not guaranteed" F. O. B. Pittsburgh, Pa. **$5,800.00**

Item WV105 Caterpillar Model D8 Tractor mounted with Caterpillar Model 8S bulldozer and LeTourneau double drum cable control; equiped with crankcase guard, front pull hook and canopy top. Installed new pistons, rings and complete valve job on starting motor. Installed new pins in master clutch, adjusted steering clutches and entire unit has been cleaned and painted. This unit is in good condition. Price reduced from $7,500.00. BUY AND TRY IT. F.O.B. Clarksburg, W. Va. **$7,000**

Item E138 D7 Tractor, equipped with 7A angling blade and No. 25 cable control. New canopy top. This tractor has rebuilt engine, main clutch, new transmission case, rebuilt moldboard; tracks rollers, and sprockets are very good. CERTIFIED BUY. F. O. B. Erie, Pa. ---------- $7,500.00

Item P235 Caterpillar D4-44" tractor, with LaPlant Choate hydraulic angle dozer equipped with crankcase guard, roller guards, pull hook ,electric starting. Good running condition; painted. CERTIFIED BUY. F.O.B. Pittsburgh, Pa. ---------- **$4,500.00**

Item WV122 Caterpillar Model D4-60" tractor mounted with Hyd. angledozer; equipped with crankcase guard, front pull hook, 16" grouser tracks and electric starting system. Reconditioned generator, water pump and starting motor bendix. Relined and adjusted steering brakes, adjusted steering clutches, master clutch, governor, valves and lifters. Installed new fuel transfer pump, instaled new track adjusting nuts. Installed five new bottom rollers and reconditioned balance. Completely rebuilt front idler. The entire unit has been cleaned and painted and is in excellent condition. BONDED BUY. F.O.B. Clarksburg, W. Va. **$5,500.00**

Item P261 Caterpillar D2-T2 High-lift, ¾ yard bucket. Needs tracks. As is, where is. F.O.B., Pittsburgh, Pa. ---------- **$2,500.00**

BECKWITH
MACHINERY COMPANY

6550 Hamilton Avenue, Pittsburgh, Pa.
361-369 Congress St., Bradford, Pa.
Old Town Road, Clearfield, Pa.
1356 E. 12th Street, Erie, Pa.
E. Broadway, Farrell, Pa.
Buckhannon Pike, W. Va. Route 20 (So.), Clarksburg, West Va.

DRAGLINE AND CRANE
LIMA 1201 — New May, 1948
Cummins Diesel Engine, Air Controls, Light Plant, 80′ Boom, 3 yd. and 3½ yd. Buckets. Machine put in first class condition.
Price ---------- $35,000.00
ANDERSON EQUIPMENT COMPANY
P. O. Box 1737, Pittsburgh 30, Penna.
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NEW and RELAYING **RAILS**
Call Foster for all sizes and sections, promptly shipped from nation-wide warehouses.
Switch Material and Track Accessories properly matched and fabricated to your exact requirements.
FASTER from FOSTER
L.B. FOSTER co.
PITTSBURGH 30 • NEW YORK 7 • CHICAGO 4
HOUSTON 2 • LOS ANGELES 5

FOR SALE
OFFERED FOR LESS THAN HALF PRICE
● Two 1952 Model Caterpillar DW20 Tractors with W20 Wagons. These are one-owner machines, just traded in on new Caterpillar DW21 Tractors and Scrapers. The Serial Numbers on Tractors: 6W130 and 6W131, and on the Wagons 5S5131 and 5S5120. Both Engines recently overhauled, including all current changes. This equipment is in excellent condition, and one machine has better than average rubber, the other fair rubber. Subject to prior sale.
HOBSON EQUIPMENT CO.
Caterpillar® Distributor
2131 Washington St.
KANSAS CITY, MO.
Phone: Harrison 6488

● James H. Cunningham has been appointed Director of Public Relations of the National Coal Association. Mr. Cunningham, formerly Assistant Director, succeeds Ralph C. Mulligan, one of the senior staff executives of the National, who is retiring and who will hereafter serve the Association in a consulting capacity.

● A new Skullgard Eyeshield, designed for convenient cap-mounting on all types of MSA Skullgard protective headgear, has been announced by Mine Safety Appliances Company, Pittsburgh, Pa.

The device, made of formed plastic, deflects flying particles which are hazardous to worker's eyes. In position, it offers unobstructed vision. The eyeshield is hinged at the peak of the Skullgard so that it can be flipped down into position when protection is needed. It will remain firmly in either the up or down positions.

A complete description of the new Skullgard Eyeshield has been published in Bulletin Number 0302-3, available from Mine Safety Appliances Company, 201 North Braddock Avenue, Pittsburgh 8, Pa.

NEW AND REBUILT
STORAGE BATTERY LOCOMOTIVES
Any Size Any Track Gauge
GREENSBURG MACHINE CO.
Greensburg Pennsylvania

Morse Roller Chain Drives

Morse Silent Chain Drives
Tranter
MANUFACTURING COMPANY
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COAL MINING

OCTOBER, 1954

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R. H. Smith Co. 2

Stiffler Industrial Lubricants Co. 3

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Walker Machinery
Co. ..... Insert between Pages 4 and 5
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Wilson & Co., Geo. L. 4

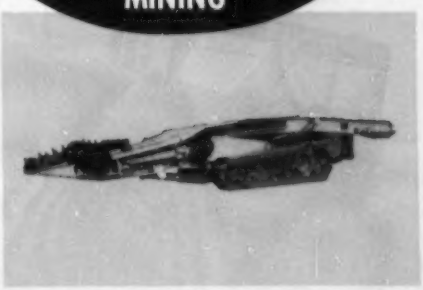
How to get high-production, mechanized loading with very little investment...

CONVERT *your present outmoded equipment to*

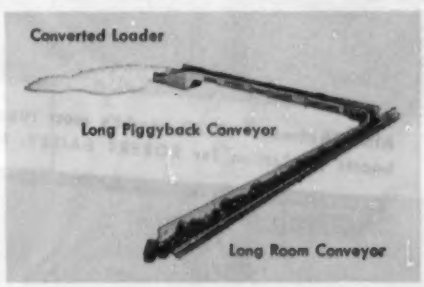
LONG PIGGYBACK® CONTINUOUS HAULAGE MINING

Here's how it's done!

1 **8 BU loader is converted for use with the Piggyback® Conveyor.** The conversion process includes lowering the overall height of the 8 BU to 31½", plus installing a short boom and wider loading head. Long will make this low-cost conversion or you can do it in your own shop. Also, conversions are available for the 12 BU, 14 BU and other popular mobile loading machines.



2 **Add a Long Piggyback Conveyor and Room Conveyor.** The Piggyback—operating as the connecting link between the loader and the room conveyor—takes coal out as fast as it is produced. No waiting for intermittent transportation.



3 **Result—a highly mechanized loading system** that assures greatly increased production and reduced operating costs, yet requires a very small equipment investment.

In case after case, this unique method of converting to Piggyback mining has enabled companies to greatly increase their production at surprisingly low investment cost. In fact, mines now using chain conveyors and shortwall cutting may only need to purchase the Piggybacks and the loader conversion for complete, high-production mechanization.

*Trade Mark

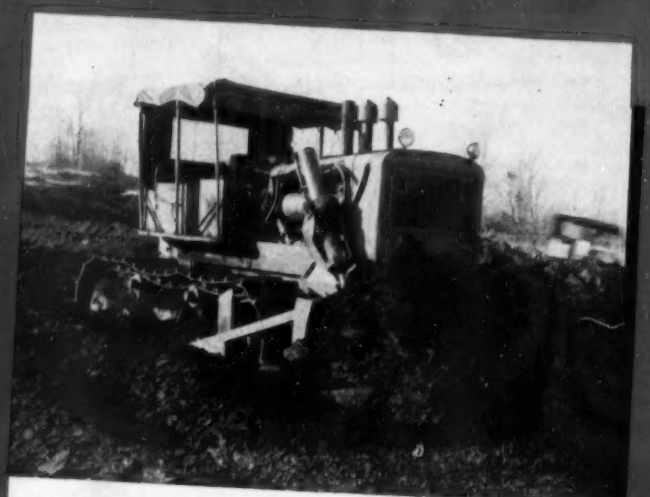
For complete details, write us today.

The LONG Company
OAK HILL, W. VA.
Formerly Long Super Mine Car Co.

don't take our word for it...

Your Highway representative will be glad to take you to see all types of mining equipment at work—on jobs where they are speeding up production and boosting profits!

Allis-Chalmers HD-20, world's most rugged tractor, boosts production for ROBERT BAILEY, Morrisdale.



Like other leading operators, MARTELL MINING CO., Surveyor, strips with Allis-Chalmers HD-20s.

Allis-Chalmers Scraper on BEN CONSTRUCTION CO. job, Saltsburg.

Highway EQUIPMENT COMPANY

6465 Hamilton Avenue • Pittsburgh, Pa.

A-7863

ALLIS-CHALMERS • JAEGER • BAKER • GAR WOOD • MICHIGAN MASTER • THOR • WAYNE CRANE • GENERAL MOTORS DIESEL ENGINES • LIMA SHOVELS, CRANES, DRAGLINES • ERIE BINS

REDUCE BLADE WEAR AND BREAKAGE ON TOUGH, ROCKY JOBS...

Like all *ESCO* blades, this sectional *ESCO* Dozer Blade is cast of special work-hardening manganese steel.

ESCO Cast Blades Often Outlast 5 or More Rolled Steel Blades

The shock and pounding of rough work develops an extremely hard wear-resistant surface on *ESCO* Blades —because they are *cast* of special *work-hardening* manganese steel.

Working an *ESCO* blade on dozers, graders or scrapers actually makes the surface more wear resistant. Yet the blade core retains high impact toughness regardless of age or usage. That's why on tough, rocky jobs *ESCO* Cast Blades reduce blade breakage—regardless of work speed — and give far longer life than any rolled steel blade. *ESCO* Cast Blades often outlast five or more rolled steel blades. Result: Less downtime for repair, lower blade replacement cost — a definite increase in productive hours per dollar invested.

ESCO Blades fit all popular makes of dozers, angle-dozers, graders and scrapers. If you want to cut *your* operating costs, use *ESCO* Work-Hardening Cast Manganese Blades on your toughest jobs. For details, see your nearest *ESCO* dealer, or write direct.

ESCO

Offices and Warehouses: Honolulu, Hawaii; Houston, Texas; New York, New York; Los Angeles, San Francisco, California; Seattle, Spokane, Washington; Centralia, Pennsylvania; Eugene, Oregon; Salt Lake City, Utah. In Canada: Vancouver, British Columbia, and Toronto, Ontario.

ELECTRIC STEEL FOUNDRY CO.

2151 N. W. 25th AVENUE, PORTLAND 10, OREGON

712 PORTER ST., DANVILLE, ILL.

CALL YOUR *ESCO* DEALER

He can help you cut costs

Kanawa Steel & Equipment Co.

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P. O. Box 687

Weirton, West Virginia

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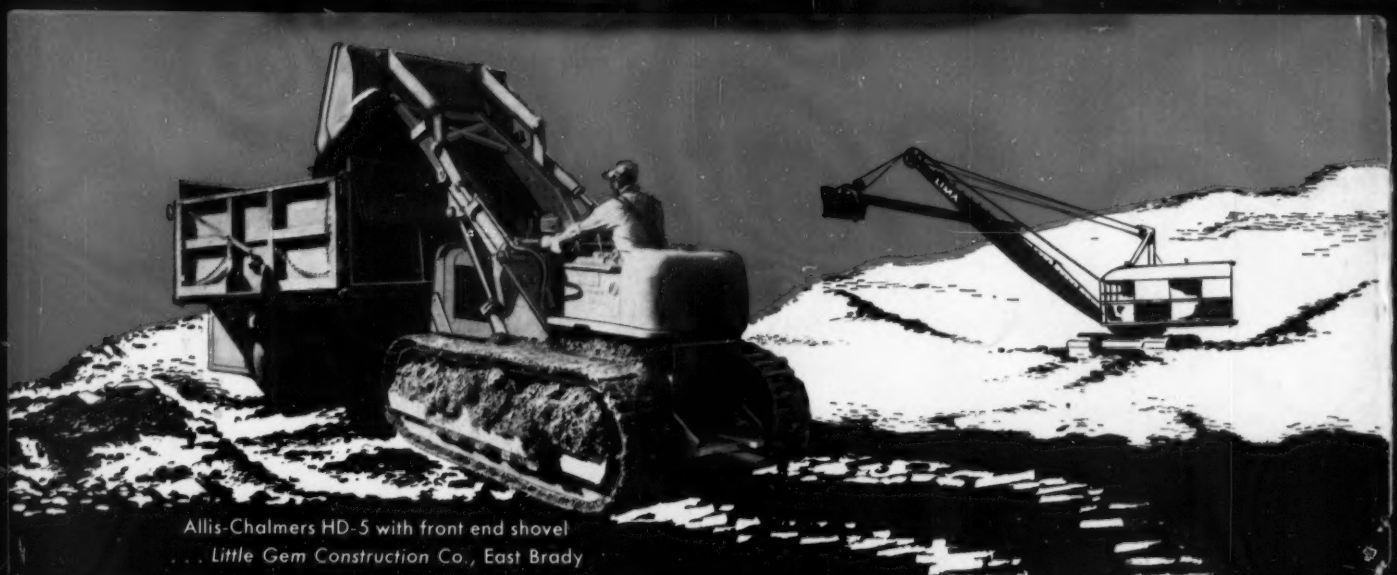
Moore's Industrial Supply Co.

Houtzdale, Pennsylvania

CUT OPERATING COSTS

with ESCO Blades and End Bits



Allis-Chalmers HD-5 with front end shovel
. . . *Little Gem Construction Co., East Brady*

SERVICE . . .

with a dual purpose

Highway offers you two types of service. Each will pay you dividends in the form of increased production and reduced costs.

SERVICE No. 1

This starts before you buy new equipment. It's offered by Highway's trained mining engineers who survey your job, then make practical, economical recommendations as to exactly what equipment will work best for you.

SERVICE No. 2

This comes after you have purchased equipment from Highway. It is always present in the form of 'round-the-clock parts and repair service. It guarantees that your work will start on time, continue without interruption and earn you greater profits.

Allis-Chalmers HD-20 . . .
Russell Cravener Mining Co., Kittanning

Allis-Chalmers HD-20 with Gar Wood
Bulldozer . . . *Harcliff Coal Co., East Brady*

Highway EQUIPMENT COMPANY

6465 Hamilton Ave. • Pittsburgh, Pa.

ALLIS-CHALMERS • JAEGER • BAKER • GAR WOOD • THOR
WAYNE CRANE • GENERAL MOTORS DIESEL ENGINES
MASTER • LIMA SHOVELS, CRANES, DRAGLINES • ERIE BINS

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